

NRC's Review of the Draft Waste Incidental to Reprocessing (WIR) Evaluation for the Test Bed Initiative (TBI) at the Hanford Site

November 18, 2021

George Alexander, Maurice Heath, Priya Yadav
Division of Decommissioning, Uranium Recovery and
Waste Programs
U.S. Nuclear Regulatory Commission

Overview

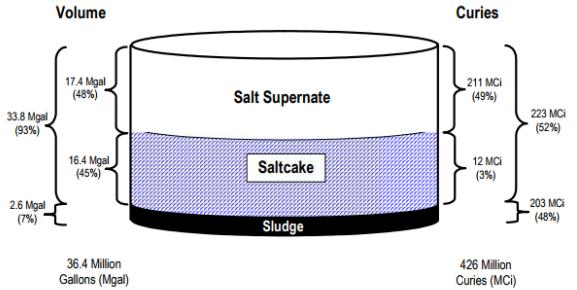
- NRC's role at Hanford
- Criteria
- Products
- Schedule

What is WIR? (theory)

WIR is waste from reprocessing that can be managed as low-level radioactive waste because of the lower level of risk it poses. Lower risk can result from:

- Separation and, in some cases, further decontamination of low-level fraction of waste
- Residuals of a higher-activity fraction, left in place and further stabilized





NRC's Role at Hanford

Waste Incidental to Reprocessing (WIR)

- Review of Test Bed Initiative (TBI) draft WIR evaluation
- Interagency agreement at Hanford (consultation only)
- NRC will not have a monitoring role at Hanford

NRC's Role at Hanford

- DOE submits its draft WIR Evaluation to NRC for review.
- Consultation typically includes:
- Scoping meetings or technical exchanges
- Requests for Additional Information
- NRC Technical Evaluation Report (TER)

Consultation



NRC's Role at Hanford - Contacts

- Project Management Maurice Heath <u>Maurice.Heath@nrc.gov</u> x3137
- Project Management (Backup) Priya Yadav <u>Priya.Yadav@nrc.gov</u> x6667
- Technical Review George Alexander <u>George.Alexander@nrc.gov</u> x6755
- Low-Level Waste & Projects Branch Chief Melissa Ralph
 Melissa.Ralph@nrc.gov x 5027
- Risk and Technical Analyses Branch Chief Chris McKenney Christepher.McKenney@nrc.gov x6663

Phone numbers take the form (301) 415 - XXXX

Criteria for Determining Reprocessing Waste is WIR (i.e., not HLW)

- Three sets of similar criteria:
 - Hanford DOE Manual 435.1-1
 - West Valley NRC West Valley Policy Statement
 - SRS and INL National Defense Authorization Act for 2005 (NDAA),
 Section 3116
- The criteria are generally consistent:
 - All require removing key radionuclides to the maximum extent practical (or "technically and economically practical")
 - All require disposal to meet the performance objectives of (or comparable to) 10 CFR Part 61 (DOE Manual 435.1-1 also has alternative requirements for waste identified as TRU)

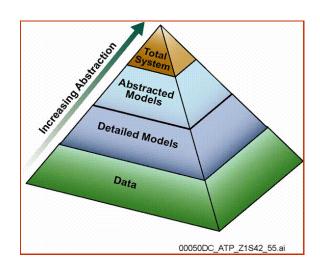


Performance Objectives of 10 CFR Part 61, Subpart C

- §61.41 Protection of the general population from releases of radioactivity (dose limit & ALARA)
- § 61.42 Protection of individuals from inadvertent intrusion
- § 61.43 Protection of individuals during operations
- § 61.44 Stability of the disposal site after closure

What is Reviewed

- Staff conducts completeness review of documents submitted.
- Staff review the draft WIR evaluation document.
- Staff review the supporting documents (first level).
- Staff review secondary and lowerlevel documents as needed.



How is it Reviewed

NUREG-1854



NRC Staff Guidance for Activities Related to U.S. Department of Energy Waste Determinations

Draft Final Report for Interim Use

U.S. Nuclear Regulatory Commission
Office of Federal and State Materials and
Environmental Management Programs
Washington, DC 20555-0001

- Staff uses NUREG-1854 to guide the review.
- NUREG-1854 provides areas of review and review procedures (ML072360184).

How is it Reviewed

- NRC's review is open and transparent.
- Documents are publically available.
- Basis for requests for additional information is provided.
- A technical evaluation report (TER) is developed to document the results of the review.
- Documents can be accessed through ADAMS, enter docket number PROJ0736 in the search box.

Schedule

- Receive draft WIR evaluation October 29, 2021
- NRC transmits completeness review letter November 29, 2021
 - Note: If all the documents necessary to conduct the review are not provided,
 adjustments to the schedule may be needed
- NRC completes detailed technical review and issues RAIs to DOE –
 January 20, 2022
- DOE transmits RAI responses to NRC February 28, 2022
 - Note: If DOE requires additional time to address RAI responses, the schedule will need to be adjusted
- NRC completes TER April 1, 2022
- Teleconference with DOE to discuss findings April 15, 2022
- NRC transmits TER to DOE May 6, 2022

Concluding Remarks

- NRC is an independent federal agency whose decision is based solely on the merits of the materials provided.
- NRC strives to provide a clear and technicallysound basis for findings.

Thank you for your time and attention